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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,751	07/17/2003	Hayder Zahalka	US 132897-2 08SC	1801

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EXAMINER	
HUANG, MEI QI	

ART UNIT	PAPER NUMBER
1713	

DATE MAILED: 08/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/621,751	ZAHALKA ET AL.	
	Examiner	Art Unit	
	Mei Q. Huang	1713	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This Office Action is in response to the Amendment filed on June 20, 2005. Claims 1-4, 7-8, 10, 12, and 14-15 have been amended, claim 17 is cancelled, claims 20-22 have been added. Claims 1-22 are now pending.
2. The objection to claim 4 has been obviated by appropriate claim amendment.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-17 are rejected under 35 U.S.C. 102(a) as being anticipated by Troutman et al. (WO 02/074847) for the same reason as expressed in the Office Action dated February 14, 2005, paragraph 3.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troutman et al. (WO 02/074847) in view of Kaprinidis et al. (US Patent Pub. 2004/0198875 with a priority date, August 15, 2001, from Provisional Application 60/312,517) for the same reason as expressed in the Office Action dated February 14, 2005, paragraph 3.

8. Claims 20 and 22 are rejected under 35 U.S.C. 102(a) as being anticipated by Troutman et al. (WO 02/074847).

The prior art to Troutman et al. is adequately presented in the previous Office Action dated February 14, 2005 and is incorporated herein by reference. Thermoplastic olefins are disclosed as the polymeric substrate of component (A) for the flame retardant composition on page 32, line 20, to page 33, line 2. On page 36, magnesium hydroxide is taught as flame retardant component. On page 51, amine oxide and hydroxylamine stabilizers are disclosed.

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9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Troutman et al. (WO 02/074847) as applied to claims 1-2 above, and further in view of Hasegawa et al. (US Patent 4,671,896).

The prior art to Troutman et al. is adequately presented in the previous Office Action dated February 14, 2005 and is incorporated herein by reference. The difference between the prior art and the present application is that Troutman et al. do not teach the particle size of the metal hydroxide retardant.

The prior art to Hasegawa et al. provides a flame-retardant composition comprising rubber or plastics free from any halogen and magnesium hydroxide having an average particle diameter of about 0.3 to about 2  $\mu\text{m}$  (Abstract). Hasegawa et al. further teach that the magnesium hydroxide less than about 0.3  $\mu\text{m}$  in diameter has such great cohesive force that it does not disperse thoroughly in the mixture and exercises adverse effects on the mechanical and other properties of the resulting composition. A size larger than about 2  $\mu\text{m}$  is again undesirable because the particles have a reduced overall surface area, leading to inadequate mechanical properties, such as low tensile strength and elongation, of the composition (column 2, lines 45-53).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply this restriction of the particle size to the magnesium hydroxide in Troutman et al.'s flame retardant composition comprising the similar polymer component, in order to obtain relatively high degree of filling with little sacrifice of mechanical properties and extrudability of the resulting composition with

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high flame retardancy, as taught by Hasegawa et al. (column 2, lines 53-68), motivated by a reasonable expectation of success.

### ***Response to Arguments***

10. Applicant's arguments filed on June 20, 2005 have been fully considered but they are not persuasive.

Applicant argues regarding the rejection made to claims 1-17 in the first Office Action (Amendment, page 7) that the prior art broadly discloses a flame retardant composition and that it is well established that an earlier disclosure of a genus does not necessarily prevent patenting of a species member of the genus. Applicant is advised that the prior art to Troutman et al. discloses each species of the claimed ones as shown in the following table.

	The Present Application	Troutman et al. '847	Cited from
Polymer	Polypropylene	Polypropylene, etc.	p32, ln 20 to p33, ln 2
Retardant	MgOH, etc.	MgOH	p36, ln10
1 <sup>st</sup> Stabilizer	Hydroxylamine, etc	Hydroxylamine	p51
2 <sup>nd</sup> Stabilizer	Phosphite and Phosphonite	Phoshite and Phosphonite	p51

Troutman et al. disclose that their component (ii), flame retardants including magnesium hydroxide, is present from about 0.25 to about 60% by weight based on the polymer component (A) (page 35, lines 9-10).

Applicant argues that the prior art to Troutman et al. does not disclose a process for the stabilization of a composition (Amendment, page 8) and a process of forming articles having improved melt stability and color stability.

The basis of the rejection and the examiner's position regarding the applied prior art are adequately set forth in the first Office Action dated February 14, 2005 (pages 3-4) and the explanation is incorporated herein by reference. In regard to the improved melt stability and color stability required by the instant claim 8, the applicant is advised that such improved characteristics should be processed by the prior art flame retardant composition because the prior art composition is substantially identical to the instantly claimed one.

Applicant argues regarding the rejection made to claims 18-19 in the first Office Action that Kaprinidis does not cure and is not cited as curing the deficiencies of Troutman, as such nothing in Kaprinidis would lead one skilled in the art to look to Kaprinidis to modify the composition of Troutman (Amendment, page 11). Applicant is advised that, as discussed in the first Office Action dated February 14, 2005, page 5, Kaprinidis et al. disclose a flame retardant polyolefin composition with good flame retardant properties, light stability and good mechanical properties (Abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the filler and reinforcing agents, as taught by Kaprinidis et al, in the flame retardant polymer formulation of Troutman et al. to not only obtain good flame retardant properties with light stability but also good mechanical properties as evidenced by Kaprinidis et al.

The courts have held that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

The courts have also held that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

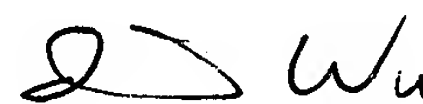
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mei Q. Huang whose telephone number is (571) 272-3549. The examiner can normally be reached on 8am - 4pm, Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mei Q. Huang  
Examiner

August 10, 2005



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